

Highlands Performance Volleyball Nutrition: Jennifer Egeland, MS, RND, LD

How to Fuel Your Workout

Will protein make my muscles grow?

Protein is an important part of a balanced diet, but eating more protein will not magically make you stronger. The only way to grow muscles is to put them to work. "Carbohydrates are the best fuel for working muscles," says Academy of Nutrition and Dietetics Spokesperson Heather Mangieri, MS, RDN, CSSD.

Carbohydrates are partially converted to glycogen, which is stored in your muscles to power your workout. "Fifty to sixty percent of energy used during one to four hours of continuous moderate to hard endurance activity is derived from carbohydrates," says Mangieri.

Do sports drinks, gels and energy bites live up to the hype?

There's nothing special about the many sports drinks, gels and energy bites on the market. But it is important to replace lost fluids and provide carbohydrates to maintain blood glucose levels while working out. "Gels, energy bites or sports drinks can be an effective way to supply the body with energy, but they are not necessary. Real food will provide the same benefit as these pre-designed workout fuels," says Mangieri.

For some athletes, eating solid food in the middle of a workout can cause digestive upset. In these cases, easily consumed sports gels, chews or drinks may help. "Food and fluid intake around workouts should be determined on an individual basis with consideration for an athlete's gastrointestinal tract tolerance, as well as duration and intensity of the workout," says Mangieri.

Is it best to work out on an empty stomach?

Your body needs fuel to function, especially if you're asking it to run, jump, swim or lift weights. Don't skip breakfast. "Eating before exercise, as opposed to [exercising in] the fasted state, has been shown to improve exercise performance," says Mangieri.

Eating in the morning helps replenish liver glycogen and steadies blood sugar levels. If it's hard to stomach solid food first thing in the morning, try a fruit smoothie, or a liquid meal supplement, and don't forget to hydrate before you exercise.

Regular exercise means I can eat what I want and not gain weight, right?

Wrong. Working out isn't license to abandon portion sizes and healthy eating guidelines. It's easy to overestimate the amount of calories you burn while working out.

You should adjust your calorie intake if you're engaging in serious training, such as for a triathlon, where you might be working out more than once a day. "Recovery nutrition is necessary if you are an athlete participating in strenuous activity, especially if you are participating in multiple events in the same day," says Mangieri. "For the casual exerciser working out for an hour or less, a healthy balanced diet will work just fine."

Is chocolate milk really an athlete's best friend?

Because of its favorable carbohydrate and protein content, chocolate milk is indeed an effective recovery aid, but it's not your only choice. "Yogurt or half a turkey sandwich on whole wheat can be just as effective," says Mangieri.

What is carbohydrate loading?

Carbohydrate loading is a technique used to increase the amount of glycogen in muscles. For five to seven days before an event, the athlete eats 10-12 grams of carbohydrate per kilogram body weight and gradually reduces the intensity of the workouts. (To find out how much you weigh in kilograms, simply divide your weight in pounds by 2.2.) The day before the event, the athlete rests and eats the same high-carbohydrate diet. Although carbohydrate loading may be beneficial for athletes participating in endurance sports which require 90 minutes or more of non-stop effort, most athletes needn't worry about carbohydrate loading. Simply eating a diet that derives more than half of its calories from carbohydrates will do.